

WHAT IS CLAIMED IS:

5 1. A gimbaled bladder actuator, said actuator comprising:  
a gimbaled compression pad; and  
actuating means for contacting said gimbaled compression pad with a bladder in a  
manner sufficient to compress said bladder.

10 2. The gimbaled bladder actuator according to Claim 1, wherein said actuating means  
comprises a lever arm under the control of an automatic movement means.

3. The gimbaled bladder actuator according to Claim 2, wherein said automatic  
movement means comprises a solenoid.

15 4. The gimbaled bladder actuator according to Claim 2, wherein said lever arm is  
attached to said movement means by a chassis.

20 5. A gimbaled bladder actuator, said actuator comprising:  
(a) a gimbaled compression pad; and  
(b) actuating means for contacting said gimbaled compression pad with a  
bladder in a manner sufficient to compress said bladder, wherein said actuating  
means comprises:

- 25 (i) a lever arm;  
(ii) a chassis; and  
(iii) a solenoid.

30 6. The gimbaled bladder actuator according to Claim 5, wherein said gimbaled  
compression pad has an actual area ranging from about 0.19 square inches to 0.21 square  
inches.

7. The gimbaled bladder actuator according to Claim 5, wherein said arm moves said gimbaled compression pad against a bladder in a manner sufficient to apply uniform pressure to said bladder.

8. The gimbaled bladder actuator according to Claim 5, wherein said gimbaled compression pad is capable of placing a compressive force on a bladder ranging from about 1 lb to 1.5 lb.

9. An automatic meter for reading a test strip, said meter comprising:  
a gimbaled bladder actuator, wherein said gimbaled bladder actuator comprises:  
(a) a gimbaled compression pad; and  
(b) actuating means for contacting said gimbaled compression pad with a bladder in a manner sufficient to compress said bladder.

10. The automatic meter according to Claim 9, wherein said actuating means comprises a lever arm under the control of an automatic movement means.

11. The automatic meter according to Claim 10, wherein said automatic movement means is a solenoid movement means.

12. The automatic meter according to Claim 10, wherein said lever arm is attached to said movement means by a chassis.

13. The automatic meter according to Claim 9, wherein said gimbaled compression pad has an actual area ranging from about 0.19 square inches to 0.21 square inches.

14. The automatic meter according to Claim 9, wherein said arm moves said gimbaled compression pad against a bladder in a manner sufficient to apply uniform pressure to said bladder.

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15. The automatic meter according to Claim 9, wherein said gimbaled compression pad is capable of placing a compressive force on a bladder ranging from about 1 lb to 1.5 lb.

5 16. A method of moving sample fluid in a test strip that includes a bladder, said method comprising:

- 10 (a) positioning a bladder of said test strip in operative relationship with a gimbaled bladder actuator, wherein said gimbaled bladder actuator comprises:
- (i) a gimbaled compression pad; and
  - (ii) actuating means for contacting said gimbaled compression pad with a bladder in a manner sufficient to compress said bladder;
- (b) actuating said actuating means in a manner sufficient to compress said bladder;
- 15 (c) applying said sample fluid to a sample receiving region of said test strip; and
- (d) actuating said actuating means in a manner sufficient to decompress said bladder and thereby move said sample fluid in said test strip;
- whereby said sample fluid is moved in said test strip.

20 17. The method according to Claim 16, wherein said gimbaled bladder actuator is a component of a meter and said method further comprises introducing said test strip into said meter.

25 18. The method according to Claim 16, wherein said actuating means comprises a lever arm under the control of an automatic movement means.

19. The method according to Claim 18, wherein said automatic movement means is a solenoid movement means.

30 20. The method according to Claim 18, wherein said lever arm is attached to said movement means by a chassis.

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